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REASON & REVELATION

A Monthly Journal of Christian Evidences

OCTOBER 2025 • VOL. 45 • NO. 10

Quantum Mechanics & DIVINE Design

**Dinosaurs
Unleashed**

WHY DOES
God
DEMAND
Worship?
Part 1

QUANTUM MECHANICS:

Unveiling the Creator's DESIGN in the Fabric of Reality

Jonathan Moore, DPM, Ph.D. and Branyon May, Ph.D.

[EDITOR'S NOTE: In addition to a terminal medical degree, author Jonathan Moore holds a Ph.D. in Biblical Studies from Amridge University. Co-author Branyon May holds a B.S. degree in Physics from Angelo State University, as well as M.S. and Ph.D. degrees in Astrophysics from the University of Alabama. Join Jonathan and Branyon as they explain how quantum mechanics reveals a finely tuned subatomic world, challenging naturalistic views and suggesting Divine intelligence.]

IN December 2024, the world celebrated a groundbreaking leap in quantum technology as Google revealed its quantum computing chip.¹ Today, innovations like Google's "Willow" chip demonstrate how scientists leverage quantum principles to create unprecedented computational power. Yet, even as we marvel at these achievements, some crucial questions remain unasked: What does quantum technology truly reveal about the nature of the Universe, and what does it mean for Christians as science continues to uncover deeper layers of complexity and mystery? Quantum mechanics, the study of subatomic particles, emerged in the early 20th century through the work of pioneers like Max Planck, a man whose views stood in stark contrast to many who study quantum physics today.² In as much as quantum mechanics correctly describes the

processes of nature, these processes and their mathematical relations were not invented by scientists—they were *discovered* as a pre-existing framework governing the Universe. Far from diminishing the Christian faith, quantum discoveries invite believers to marvel at a Universe that reflects the fingerprints of its Creator, a God Whose wisdom and design can be seen in what we understand and must therefore extend beyond our current understanding.

Quantum mechanics reveals an intricate framework governing the Universe, a framework so precise and complex that it invites us to question its origins. From the principles of superposition and entanglement to the unprecedented computational potential of quantum technologies, these discoveries point to an underlying order beyond mere chance. Just as DNA serves as a powerful analogy for intelligent design, quantum mechanics unveils a reality far deeper than human comprehension. This article explores the implications of quantum mechanics for understanding the nature of the Universe and highlights the evidence of an intelligent Creator woven into the fabric of reality. By examining the limitations of naturalistic explanations and the necessity of design, we are invited to see the quantum world as a reflection of divine Intelligence.

CLASSICAL PHYSICS VS. QUANTUM PHYSICS

CLASSICAL physics governs the macroscopic domain, encompassing the behavior of everyday objects like cars, airplanes, and celestial bodies. Its laws, including Newton's laws of motion, provide an intuitive framework for understanding motion, gravity, and forces on a scale we can observe and experience directly.

Quantum physics, on the other hand, delves into the subatomic world of atoms and subatomic particles, where the application of classical physics no longer applies. This divergence arises because quantum phenomena follow principles beyond the laws of classical physics and are unique from our conventional understanding of the macroscopic world. These principles,³ such as indeterminate states, probabilistic measurements, and non-local effects, challenge classical intuition but remain grounded in physical realities like energy conservation and the impossibility of faster-than-light travel. For instance, wave-particle duality reveals that particles such as electrons and photons can behave both as discrete particles and as waves, depending on how they are observed. Similarly, the uncertainty principle, a cornerstone of quantum mechanics, asserts that it is fundamentally impossible to simultaneously measure both the position and momentum of a particle with absolute precision. This limitation challenges the rigid framework of cause-and-effect in classical mechanics, which assumes perfect predictability given sufficient data.

Another defining feature of quantum mechanics is the principle of superposition, which describes how particles can exist in multiple states simultaneously until they are measured. This principle, while counterintuitive, forms the basis

for groundbreaking technologies like quantum computing, where superposition allows quantum bits (qubits) to perform complex calculations far beyond the capacity of classical computers.⁴

The divergence between classical and quantum physics becomes even more pronounced when considering their respective limitations. Classical physics fails to accurately describe phenomena at the quantum level, such as the behavior of electrons within an atom. Unlike planets orbiting a star, electrons do not follow fixed trajectories but are better represented as probabilistic “clouds” of potential locations. This distinction underscores the necessity of quantum mechanics for understanding the building blocks of matter.

Despite these differences, classical and quantum physics are not entirely disconnected. At larger scales and higher energies, the probabilistic effects of quantum mechanics average out, allowing classical physics to emerge as a valid approximation of quantum behavior. This transition is known as the classical limit,⁵ illustrating how the two frameworks are complementary rather than contradictory. Modern physics has even merged these domains through quantum field theory, which integrates quantum mechanics with the principles of special relativity, offering a unified description of particles and forces.

Ultimately, while classical physics provides an accessible framework for understanding the macroscopic world, quantum mechanics reveals the intricate and often bewildering rules governing the Universe at its most fundamental level. Though complex, quantum physics is not a loophole for fantastical claims like perpetual motion or time travel. It is a predictive framework that must be understood with scientific rigor and not misused for pseudoscientific

narratives. These discoveries challenge us to think beyond the familiar and to appreciate the profound complexity and order underlying all of creation. Far from diminishing the awe of scientific inquiry, quantum mechanics invites us to explore deeper truths about the Cosmos.

QUANTUM COMPUTERS

THESE precise principles allow humanity to harness them for groundbreaking technologies like quantum computers. Creating quantum computers requires solving immense engineering challenges. These machines rely on qubits, the building blocks of quantum computation. Qubits are highly sensitive and implemented using advanced methods such as superconducting circuits, trapped ions, or photons.⁶ For instance, superconducting qubits operate at temperatures near absolute zero to reduce noise and energy loss, while trapped ion qubits use electromagnetic fields to isolate and manipulate ions.

Despite the incredible potential of quantum computers to solve problems beyond the reach of classical machines—such as factoring large numbers exponentially faster with Shor’s algorithm,⁷ employing Grover’s algorithm⁸ for database searching, or simulating complex molecules for drug discovery—current systems remain highly unstable and face numerous limitations. Quantum systems require precision and careful engineering to function. Any disturbance—temperature, radiation, or interference—causes decoherence, rendering the system ineffective.⁹

High error rates further complicate computations, requiring sophisticated error correction methods that drastically increase the number of qubits needed for reliable results.¹⁰ Additionally, the scalability of qubit systems remains a major hurdle, as

maintaining quantum entanglement across large-scale devices while minimizing noise is an immense engineering challenge.¹¹ Practical quantum computers also face severe hardware constraints, including limited qubit connectivity and the need for cryogenic cooling near absolute zero, which imposes significant energy demands.¹² Moreover, current NISQ (Noisy Intermediate-Scale Quantum) devices are limited in their computational power, capable of performing only small-scale tasks without demonstrating clear quantum advantage for practical applications.¹³ Finally, while quantum computing excels at certain problems, theoretical constraints suggest that not all computational tasks benefit from quantum speed-up, limiting its applicability.¹⁴ These challenges demonstrate the significant gap between the theoretical promise of quantum computing and its current, practical limitations.

While quantum computers are astonishingly powerful, their existence and operation depend entirely on human intelligence and effort. Despite their speed and complexity, they cannot create, program, or assemble themselves. Every part of the quantum computer—from hardware design to error correction—requires human ingenuity. Humans must write algorithms and design the systems that harness these principles. Without explicit input, quantum computers cannot determine which problems to solve, and they remain idle, incapable of autonomous operation. None of these advancements occurred spontaneously; they resulted from careful planning, experimentation, and deliberate effort. This limitation highlights the broader truth that intelligence is required to create systems of order and purpose—a concept that extends beyond quantum computing to the very foundation of life itself.

QUANTUM MECHANICS AND THE ORIGIN OF LIFE

THE exploration of quantum mechanics and its potential role in the origin of life has sparked fascination, speculation, and debate. Academics Johnjoe McFadden, a professor of molecular genetics, and Jim Al-Khalili, a theoretical physicist from the University of Surrey, stand at the forefront of this discussion. Together, they direct the world's first doctoral training center dedicated to quantum biology, a field that seeks to integrate quantum mechanics into biological processes. McFadden and Al-Khalili present a hypothesis that leans more toward the fanciful—if not outright fantastical—and yet is hailed by some as “science” in today's discourse: quantum mechanics may have mediated the search for a self-replicating molecule—a proto-enzyme—in the alleged primordial soup. At the heart of their hypothesis lies quantum coherence—a phenomenon in quantum mechanics where matter particles exhibit wave-like properties and exist in multiple states simultaneously. Their idea is that quantum coherence could have played a fundamental role in overcoming the insurmountable challenges of abiogenesis, the concept of life arising from non-living matter.

By leveraging these states, McFadden and Al-Khalili suggest that quantum processes might have accelerated the search for functional self-replicating molecules in the chaotic prebiotic world. In essence, they invoke the strange principles of the quantum realm as a kind of “search engine” to explain the improbable transition from inanimate chemistry to life. While their ideas are creative and intriguing, they rely heavily on conjecture rather than empirical evidence. As critics have rightly pointed out, quantum mechanics may explain processes

within living organisms but falls far short of solving the fundamental question of life's origin. Even McFadden and Al-Khalili concede: “Of course, any scenario involving quantum mechanics in the origin of life three billion years ago remains *highly speculative*.”¹⁵

Physicists working with quantum systems must cool their equipment to near absolute zero and isolate it from environmental noise to maintain coherence. In contrast, the hypothesized primordial soup—a chaotic, warm environment teeming with unstable chemicals—lacks the controlled conditions necessary to sustain quantum coherence. For McFadden and Al-Khalili's hypothesis to hold, quantum processes would need to survive long enough to locate a functional self-replicating molecule.¹⁶ This stretches the boundaries of plausibility and ignores the physical realities of quantum systems.

McFadden and Al-Khalili's reliance on quantum mechanics to explain abiogenesis represents a form of “naturalism-of-the-gaps.” Just as some invoke time as a “magic wand” to solve the improbabilities of Darwinian evolution, quantum coherence is presented as the catalyst for overcoming the challenges of abiogenesis. However, this approach is intellectually unsatisfying and scientifically unconvincing. The principles of quantum mechanics are fascinating and powerful, but they cannot be used as a placeholder for evidence.

Theoretical physicist David Griffiths offers a well-founded cynicism toward such speculative claims: “In general, when you hear a physicist invoke the uncertainty principle, keep a hand on your wallet.”¹⁷ Griffiths's caution highlights the need for skepticism when quantum mechanics is invoked to explain the unexplainable. While quantum processes undoubtedly play roles in bio-

logical systems, extrapolating these processes to the prebiotic world without evidence is a leap too far.

THE PROBLEM OF ABIOGENESIS

ABIOGENESIS—The theory that life arose from non-living chemicals—remains one of the most significant hurdles for naturalistic explanations of life's origin. Proponents of abiogenesis face multiple challenges, including the instability of RNA, the improbability of self-replication, and the unresolved issue of homochirality.

The Instability of RNA

RNA, a central molecule in the RNA world hypothesis, is proposed to have acted as both a gene and an enzyme in the early stages of life. However, RNA is inherently unstable, degrading rapidly without repair mechanisms. Even DNA, which is far more stable, requires complex cellular machinery to maintain its integrity. Nobel Prize-winning research has shown that living cells rely on intricate repair systems to prevent DNA damage.¹⁸ RNA, which is 100 times less stable than DNA, could not have survived the harsh conditions of the primordial soup long enough to support the emergence of life. Without these repair mechanisms, RNA would quickly degrade, rendering abiogenesis implausible.¹⁹

The Improbability of Self-Replication

The RNA world hypothesis assumes that a self-replicating ribozyme emerged spontaneously from a pool of prebiotic chemicals. Chemist Graham Cairns-Smith calculates the probability of a single molecule converting into RNA by chance at 1 in 10^{109} —a number so astronomically large it exceeds the total number of particles in the Universe.²⁰ McFadden and Al-Khalili acknowledge this problem, admitting, “Clearly, we cannot rely on pure chance alone.”²¹ Their

solution—quantum coherence as a search mechanism—introduces more speculation without addressing the underlying improbability.

The Problem of Homochirality

Life depends on the exclusive use of left-handed amino acids and right-handed sugars, a phenomenon known as homochirality. In biologically unaided chemistry, molecules form in a 50:50 mixture of left- and right-handed forms. For life to exist, a system must achieve and maintain this chemical asymmetry. Quantum mechanics offers no explanation for how homochirality could arise spontaneously in a prebiotic environment. Without a mechanism to produce homochirality, the RNA world hypothesis collapses.²²

MAX PLANCK AND THE ROLE OF GOD IN QUANTUM MECHANICS

THE foundational contributions of Max Planck, widely regarded as the father of quantum theory, provide a critical perspective in understanding the origins of quantum mechanics and its implications. Planck's groundbreaking proposal in 1900—that energy is quantized—paved the way for modern physics, revolutionizing our understanding of the subatomic realm. Yet, unlike many modern scientists who divorce science from faith, Planck's discoveries deepened his conviction in a Creator.

Far from attributing the laws of the Universe to random, mindless processes, Planck saw divine Intelligence behind the order he observed. He famously stated:

All matter originates and exists only by virtue of a force which brings the particles of an atom to vibration and holds this most minute solar system of the atom together. We must assume behind this force the existence of a conscious and intelligent

Mind. This mind is the matrix of all matter.²³

For Planck, the Universe's complexity and structure revealed the work of a Creator, not chance. He explicitly rejected the materialistic worldview that dismisses God's role in the cosmos:

There can never be any real opposition between religion and science; for the one is the complement of the other. Every serious and reflective person realizes, I think, that the religious element in his nature must be recognized and cultivated if all the powers of the human soul are to act together in perfect balance and harmony.²⁴

Planck believed that science and religion shared a common goal: the pursuit of truth. He observed that both disciplines ultimately lead to God—science revealing Him at the end of rational inquiry and religion affirming Him as the foundation of faith. In his lecture, "Religion and Natural Science," Planck remarked, "Both religion and science need for their activities the belief in God, and moreover, God stands for the former in the beginning, and for the latter at the end of the whole thinking."²⁵ This perspective stands in stark contrast to the speculative claims of naturalism, which seek

to explain the origin of life and the Universe without acknowledging a Creator.

While quantum mechanics reveals intricate principles governing the fabric of reality, Planck understood that such principles could not exist without a Lawgiver. As he poignantly noted:

That God existed before there were human beings on Earth, that He holds the entire world, believers and non-believers, in His omnipotent hand for eternity, and that He will remain enthroned on a level inaccessible to human comprehension long after the Earth and everything that is on it has gone to ruins; those who profess this faith and who, inspired by it, in veneration and complete confidence, feel secure from the dangers of life under protection of the Almighty, only those may number themselves among the truly religious.²⁶

Thus, Planck's work provides a powerful rebuttal to those who attempt to use quantum mechanics as an explanation for life's origin. The very existence of quantum principles, finely tuned and intelligible, points—not to randomness—but to a purposeful and intelligent Creator.

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THE CASE FOR INTELLIGENT DESIGN

THE complexity and precision required for life suggest an intelligent cause rather than random, unguided processes. Quantum mechanics itself reveals a profound order and design at the subatomic level, hinting at something deeper within creation. Some have suggested that quantum physics exposes a connection between consciousness and the very fabric of reality. If consciousness were merely a product of evolution, it would arise naturally from physical processes in the brain, much like heat radiates from fire. However, consciousness does not emerge in this way, so it cannot be solely attributed to evolution.

If quantum reality truly depends on consciousness, then consciousness must already exist wherever atoms are present. This implies that the existence of atoms inherently points to the existence of consciousness. Therefore, consciousness is not a byproduct of evolution but an independent and fundamental aspect of reality itself. The principles of superposition, entanglement, and coherence demonstrate that the Universe operates under finely tuned parameters. If the Universe operates according to such intricate and discoverable principles, it is reasonable to ask: who or what established these principles?

DNA, Quantum Computing, and Evidence of Design

Consider DNA, the code of life. DNA is far more advanced than any manmade computational system, including quantum computers. It contains a four-letter code (A, T, C, G) that stores the instructions for building and sustaining all living organisms. A single gram of DNA can hold up to 215 petabytes²⁷ of information, equivalent to billions

of books, vastly surpassing the data density of any quantum computer.

To compute the probability of even one gram of DNA arising by chance is an exercise in absurdity. Statistical biology estimates that the odds of even a single functional protein forming randomly are one in 10^{164} .²⁸ Considering that there are only approximately 10^{80} elementary particles in the Universe and only about 10^{18} seconds since the alleged Big Bang, the probability of $1/10^{164}$ represents an astronomically small likelihood. Even if every particle in the Universe participated in a unique interaction every second since the beginning of time, the total number of events would only amount to 10^{98} . This is still vastly smaller than the number of possible amino acid combinations required for a single functional protein, making the formation of such a protein through random processes effectively impossible within evolutionary timescales and models for the Universe.²⁹ When extended to the complexity of DNA, the improbability becomes so vast that it defies comprehension.³⁰

DNA has long been recognized for its unparalleled integration of storage, replication, and functionality. While quantum systems focus primarily on processing rather than long-term storage, DNA's redundancy, self-replication, and built-in mechanisms for reading and writing its code set it apart as uniquely suited for life's complex requirements. The staggering complexity of the quantum realm pales in comparison to DNA, making the notion of its random origins even more implausible.

This comparison underscores a stark truth: while quantum computers demand intelligent design and deliberate effort, DNA—ininitely more complex—is claimed by some to have arisen by random processes. Such a claim is impossible to rec-

onile with the observable necessity of intelligence in creating order and functionality. How absurd and utterly irrational it would be for the designers of a quantum chip to examine their intricate creation and declare that the complexity of their computer and its programming “merely *appeared* to be designed.” Yet, this is precisely the stance taken by contemporary neo-Darwinian biologists such as Richard Dawkins, Francis Crick, and Richard Lewontin, who insist that biological organisms, despite their breathtaking intricacy and functionality, only *seem* to have been designed.³¹ Such a claim not only defies common sense but also diminishes the profound ingenuity evident in the natural world.

Rather, DNA reveals evidence of infinite Intelligence. Unlike quantum computers, which require constant external guidance, DNA operates autonomously. It self-replicates, adapts, and executes instructions without ongoing external input. Its ability to create diversity within species demonstrates foresight and functionality that no human-engineered system can replicate. Evolutionary models often argue that random mutations produced DNA's complexity, yet such assumptions conflict with the observable necessity of intelligence in creating intricate systems.

The advancements in quantum computing and the complexities of DNA both point to a deeper truth. Intelligence and design are essential for creating systems of order, whether in the quantum realm or in biological life. Quantum computers showcase humanity's ability to harness the laws of physics, but DNA reflects an intelligence far beyond human capability.³² These systems, both technological and biological, highlight the fingerprints of infinite Intelligence—a Creator Who

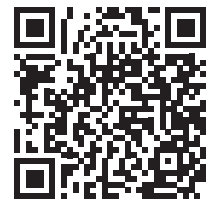
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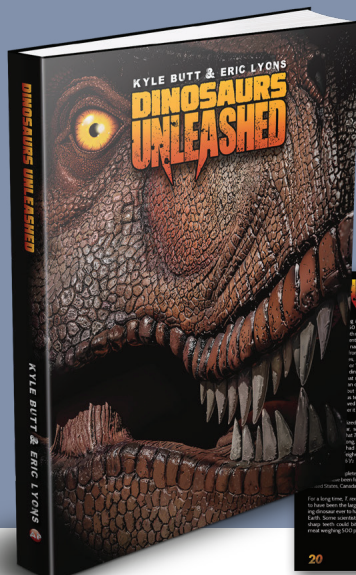
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designed life with purpose and precision.

A BIBLICAL PERSPECTIVE ON QUANTUM MECHANICS

FROM a biblical perspective, the order and complexity observed in quantum mechanics align with the belief in a Creator Who designed the Universe with purpose. Genesis 1:1 declares, “In the beginning God created the heavens and the earth.” The discoverable laws of physics, including quantum principles, reflect the intentionality of their Creator. Far from being random or purposeless, the Universe reveals a consistent, ordered structure that allows for scientific exploration and discovery.

The Apostle Paul affirms this truth in Romans 1:20: “For since the creation of the world, his invisible attributes—his eternal power and divine nature—have been clearly seen, because they are understood through what has been made. So people are without excuse” (NEV). The beauty and complexity of quantum mechanics serve as evidence of God’s craftsmanship, inviting humanity to marvel at His creation rather than attributing it to blind chance.³³

FAITH, SCIENCE, AND THE CREATOR

THE exploration of quantum mechanics and its potential role in the origin of life highlights the limitations of naturalistic explanations. While McFadden and Al-Khalili offer creative hypotheses, their reliance on quantum coherence to overcome the challenges of abiogenesis is speculative and unsupported by evidence. The instability of RNA, the improbability of self-replication, and the problem of homochirality remain insurmountable hurdles for naturalistic theories.

By contrast, the order and complexity observed in quantum mechanics and DNA point to an

intelligent Creator Who designed life with purpose and precision. Quantum mechanics reveals the fingerprints of a divine Lawgiver, while DNA showcases His infinite wisdom. Rather than invoking quantum principles as a “magic wand” to explain the unexplainable, we can acknowledge a Creator who made all things in an ordered manner. As Psalm 19:1 declares, “The heavens declare the glory of God; and the firmament shows His handiwork.”

In the end, faith and science are not at odds. Scientific discovery reveals the intricacy and beauty of God’s creation, inviting us to stand in awe of the One Who created the Universe and all life within it. The quantum realm reveals a depth of beauty, design, and complexity so vast that it mirrors the immeasurable expanse of the Universe itself—like peering through a telescope into eternity. Every discovery at this level, from the behavior of subatomic particles to the not yet fully described forces holding all things together, points to an underlying order that transcends randomness. Yet, as scientists delve into these mysteries, many elevate themselves, claiming to hold the Universe’s secrets, when in reality they are only uncovering God’s design. As the Scriptures remind us, “Professing to be wise, they became fools” (Romans 1:22). Intelligence without humility blinds

the mind to the obvious truth: such complexity demands a Creator.

No one enters a museum and ignores the artists behind its masterpieces. To gaze upon the intricate workings of the quantum world, the ocean’s depths, or the heart of a distant black hole, and deny the Creator, is a failure of both reason and purpose. God invites us to see His fingerprints in every layer of creation, to admire Him, and to fall in love with the One Who designed it all. To refuse this invitation is not just a travesty; it is a rejection of the truth and a degradation of the very minds He lovingly bestowed upon us. The words of Max Planck echo this notion:

Under these conditions it is no wonder, that the movement of atheists, which declares religion to be just a deliberate illusion, invented by power-seeking priests, and which has for the pious belief in a higher Power nothing but words of mockery, eagerly makes use of progressive scientific knowledge and in a presumed unity with it, expands in an ever faster pace its disintegrating action on all nations of the earth and on all social levels. I do not need to explain in any more detail that after its victory not only all the most precious treasures of our culture would vanish, but—which is even worse—also any prospects at a better future.³⁴

Reason & Revelation is published monthly by Apologetics Press, Inc. Periodicals postage paid at Montgomery, AL. **Postmaster:** Send address changes to **Reason & Revelation**, 230 Landmark Dr., Montgomery, AL 36117; **ISSN:**[1542-0922] **USPS#** 023415.

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ENDNOTES

- ¹ Chris Vallance (December 10, 2024), “Google Unveils ‘Mind-Boggling’ Quantum Computing Chip,” *BBC News*, <https://www.bbc.com/news/articles/c791ng0zvl3o>.
- ² Einstein was well-known for his reluctance to accept the more counterintuitive implications of quantum physics. Yet, he deeply recognized that genuine scientific inquiry assumes the existence of a guiding consciousness. He once remarked that “anyone who devotes themselves seriously to science cannot help but be convinced that a spirit reveals itself in the laws of the Universe—a spirit far greater than that of humanity, before which we must humbly stand in awe” [Max Jammer (1999), *Einstein and Religion: Physics and Theology* (Princeton University Press), pp 92-93].
- ³ The process of uncovering these principles is fundamentally similar: follow clues, develop models, test them rigorously, and discover that most initial ideas are incorrect. Despite its reputation for strangeness, quantum physics is no different in its methodology. For instance, the concept that “the sum of the masses of isolated objects multiplied by the derivative of their positions with respect to time remains constant” was not immediately obvious. It took years of mathematical refinement and experimentation before this principle was named and simplified as “conservation of momentum.”
- ⁴ See R. Shankar (2019), *Principles of Quantum Mechanics* (Princeton, NJ: Springer), second edition.
- ⁵ The classical limit in quantum physics refers to the transition where quantum systems begin to exhibit classical behavior as certain parameters (e.g., large masses, high quantum numbers, or macroscopic scales) are reached. This concept helps explain how classical mechanics emerges as a limiting case of quantum mechanics. A foundational discussion of the classical limit is found in P.A.M. Dirac (1958), *The Principles of Quantum Mechanics* (Oxford: Oxford University Press), fourth edition, pp. 105-108.
- ⁶ Classical bits and quantum bits (qubits) operate under fundamentally different principles. Classical bits can exist in only two distinct states, 0 or 1, and these states can be fully measured, copied, or erased without altering the bit itself. Measurement of a classical bit is straightforward and does not change its state, ensuring stability and reproducibility. In contrast, quantum bits can exist not only in state 0 or state 1 but also in a superposition—a linear combination of both states. Unlike classical bits, qubits can only be measured partially, with the outcome determined probabilistically. Measurement of a qubit fundamentally alters its state, collapsing it into a single definite state. Additionally, quantum mechanics imposes limitations that prevent qubits from being perfectly copied (due to the no-cloning theorem) or completely erased, further distinguishing them from their classical counterparts.
- ⁷ P. Shor (1997), “Polynomial-Time Algorithms for Prime Factorization and Discrete Logarithms on a Quantum Computer,” *SIAM Journal on Computing*, 26[5]:1484.
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- ¹¹ Phillip Kaye, Raymond Laflamme, and Michele Mosca (2007), *An Introduction to Quantum Computing* (Oxford: Oxford University Press), pp. 112-120.
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- ¹³ Scott Aaronson (2013), *Quantum Computing Since Democritus* (Cambridge: Cambridge University Press), pp. 239-246.
- ¹⁴ N.D. Mermin (2007), *Quantum Computer Science: An Introduction* (Cambridge: Cambridge University Press), pp. 185-192.
- ¹⁵ John Joe McFadden and Jim Al-Khalili (2014), *Life on the Edge: The Coming of Age of Quantum Biology* (New York: Broadway Books), p. 183, emp. added.
- ¹⁶ McFadden and Al-Khalili (2014), pp. 173-196.
- ¹⁷ David J. Griffiths (2005), *Introduction to Quantum Mechanics* (Upper Saddle River, NJ: Pearson Prentice Hall), second edition, p. 105.
- ¹⁸ Gerald F. Joyce (1989), “RNA Evolution and the Origins of Life,” *Nature*, 338[6212]:217-224.
- ¹⁹ Ibid.
- ²⁰ In his book, *Seven Clues to the Origin of Life: A Scientific Detective Story*, Cairns-Smith discusses the improbability of RNA molecules forming spontaneously in a prebiotic environment. He estimates that the formation of RNA from simple organic compounds would require approximately 140 specific steps, with each step having about six possible reactions, only one of which leads toward forming RNA. Thus, the probability of a starting molecule eventually converting into RNA is comparable to rolling a six on a die 140 times consecutively, which equates to a probability of $(1/6)^{140}$ or roughly 1 in 10^{109} . See A.G. Cairns-Smith (1985), *Seven Clues to the Origin of Life: A Scientific Detective Story* (Cambridge: Cambridge University Press), pp. 44-45.
- ²¹ McFadden and Al-Khalili (2014), p. 280.
- ²² For more information about the problem of homochirality in the beginning of life, see Joe Deweese (2023), “Homochirality and the Origin of Life,” *Reason & Revelation*, 43[11]:122-124, November.
- ²³ Planck as cited in Hans Joachim Eggenstein (1984), *In the Beginning Was the Matrix: Max Planck and the Origins of Quantum Theory* (Munich: Philosophical Publishing House).
- ²⁴ Max Planck (1932), *Where Is Science Going?* trans. James Murphy (New York: W.W. Norton), p. 168.
- ²⁵ Max Planck (1958), *Religion und Naturwissenschaft* (Leipzig: Johann Ambrosius Barth Verlag), p. 27.
- ²⁶ Max Planck (1950), *A Scientific Autobiography and Other Papers*, trans. Frank Gaynor (London: Williams and Norgate), p. 167.
- ²⁷ A petabyte (PB) is a unit of digital data storage. 1 petabyte = 1,000 terabytes (TB) = 1,000,000 gigabytes (GB).
- ²⁸ In his book, *Signature in the Cell*, Stephen Meyer derives this probability using a hypothetical protein that is 150 amino acids long. He estimates the ratio of functional folds to the total number of possible sequences to be $1/10^{74}$. He then accounts for the requirement that each bond between amino acids must be a peptide bond, which he calculates as a probability of $1/10^{45}$. Additionally, he includes the necessity for each amino acid to be a “left-handed” optical isomer to enable proper folding, assigning the same probability of $1/10^{45}$ for this factor. Combining these probabilities, he multiplies $10^{74} \times 10^{45} \times 10^{45}$ resulting in a final improbability estimate of $1/10^{164}$. See Meyer (2009), *Signature in the Cell: DNA and the Evidence for Intelligent Design* (San Francisco: HarperOne).
- ²⁹ Meyer (2009).
- ³⁰ George M. Church, Yuan Gao, and Sriram Kosuri (2012), “Next-Generation Digital Information Storage in DNA,” *Science*, 337[6102]:1628.
- ³¹ Stephen C. Meyer (2013), *Darwin’s Doubt: The Explosive Origin of Animal Life and the Case for Intelligent Design* (New York: HarperOne), p. 218.
- ³² The DNA in a single human cell is about two meters (six feet) long when uncoiled. In all cells of the human body, the total DNA length would span approximately 10 billion miles, enough to travel to Pluto and back. See B. Alberts, A. Johnson, J. Lewis, et al. (2002), *Molecular Biology of the Cell*, 4th ed. (New York: Garland Science).
- ³³ For more information on Creation and quantum mechanics, see Jeff Miller (2013), “Can Quantum Mechanics Produce a Universe from Nothing?” *Reason & Revelation*, 33[2]:14-21, February; Jeff Miller (2017), “Quantum Mechanics: ‘No Universal Cause Necessary?’” *Reason & Revelation*, 37[6]:64-65, June;
- ³⁴ Max Planck (1958), p. 7.

Why Does God Demand We Worship Him? (Part 1)

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Scriptures filled with commands, demands, and admonitions for all people to worship God alone, recognize His infinite qualities, and bow before Him?

This Accusation Seems Misguided to Christians

Before we begin to answer this question, Christians may be surprised that this is even an accusation that needs an answer. This is the case because they have never felt like they were “commanded” to praise God, extol His virtues, or tell others of His excellence and glory. These reactions simply come naturally to them as they have learned about the character of God and His innumerable acts of righteousness, power, justice, mercy, grace, forgiveness, love, and goodness. Psalm 23 provides an excellent example of this attitude. The writer of the psalm, King David, is not writing because He is forced to worship God. Instead, he is writing because he recognizes all the ways that God has, and will, bless his life. David simply wants others to know how wonderful his God is.

It is interesting that agnostic Bart Ehrman once stated: “The problem is this: I have such a fantastic life that I feel an overwhelming sense of gratitude for it; I am fortunate beyond words. But I don’t have anyone to express my gratitude to. This is a void deep inside me, a void of wanting someone to thank, and I don’t see any plausible way of filling it.”⁶ Christians feel this same overwhelming sense of gratitude, but they do not experience the void of having no one to thank. On the contrary, their gratitude naturally extends to praising, thanking, and glorifying their Creator Who is responsible for their lives.

In truth, when a person loves and appreciates another person, he or she does not feel *obligated* to

THE modern atheistic movement regularly accuses the God of the Bible of behaving in immoral ways. One accusation from unbelievers against God is that He is egocentric and arrogant. Why does God command and demand that all people praise Him, call Him the greatest, tell Him how wonderful He is, ascribe to Him glory and honor, and in other ways worship Him? If God knows all these things about Himself, and He is comfortable in His “own shoes,” why does He insist that everyone bow down to Him and praise His name?

Several leading voices in the atheistic community believe they have the answer to such a question. They contend that humans made up the stories in the Bible, and therefore the God Who is depicted in its pages reflects the human characteristics of narcissism and megalomania. Atheist Dan Barker wrote: “Megalomania does not have a precise medical definition. In the old days, it was called ‘a narcissistic personality disorder,’ and that seems to fit the God of the Old Testament perfectly. ‘Look at me, me, me! I am wonderful! Nobody is more powerful!’”¹ He continued this thought by stating: “The Old Testament is crammed with ego-stroking proclamations, attention-seeking and show-off displays of God’s self-proclaimed majesty.”² And: “Like a football player showing off to both impress the cheerleaders and intimidate the competition, the Lord Jealous was a macho boaster. ‘Look at me! I am the great and terrible Lord!’”

Truly great people are psychologically secure, not dependent on the opinions of others. God is not great. He is merely megalomaniacal.”³

Preacher-turned-atheist Charles Templeton, in his book *Farewell to God*, wrote: “And what is this consuming need the God of the Bible has to be worshipped, to be everlastingly praised and assured that he is the Great One, the most deserving of adoration and praise? Today such a condition would be diagnosed as pathological.”⁴ The late Christopher Hitchens, outspoken atheist and vehement opponent of the God of the Bible, stated: “There is, first, the monarchial growling about respect and fear, accompanied by a stern reminder of omnipotence and limitless revenge...”⁵

While those statements were made nearly two decades ago, the sentiment is still prevalent among those who do not believe in the God of the Bible. Most modern unbelievers with whom I’ve interacted, however, would not use openly harsh and “unfriendly” terms like megalomaniacal and “macho boaster.” In fact, many of the younger atheists and agnostics seem to be distancing themselves from the aggressive and hostile approach of the New Atheism movement. Instead, the modern young unbeliever might be heard to say something as simple as, “If God knows he is all-powerful, why would he force everyone to worship him and praise him?” The question is simply left out there in a way that suggests it has not, or cannot, be answered satisfactorily. Why are the

express those sentiments, they just come naturally. Imagine the young fiancé who is asked about his future bride. He gushes over her beauty, her intellect, her kindness, tender heart, and a million and one other praiseworthy attributes about her that he has grown to love. His glowing description is not forced or out of obligation but is the natural reaction to how he feels about her. Or think about the avid basketball fan who believes Michael Jordan is the best basketball player to have ever played the game. If you ask him why he thinks that, he will be thrilled to tell you all the stats, intangibles, and great moments he believes prove that MJ is the best. His praise for Jordan's basketball skills flows naturally from his appreciation for how good Jordan is at the game, not from a sense of necessity or obligation.

As people experience the joy and beauty of a loving relationship with God, they cannot help but worship the God Who provided such a "fantastic life."

- "Oh, taste and see that the Lord is good; blessed is the man who trusts in Him!" (Psalm 34:8).
- "For you have formed my inward parts; You have covered me in my mother's womb. I will praise You, for I am fearfully and wonderfully made; marvelous are Your works, and that my soul knows very well" (Psalm 139:13-14).
- "I will worship toward Your holy temple, and praise Your name for Your lovingkindness and Your truth; for you have magnified Your word above all Your name. In the day when I cried out, You answered me, and made me bold with strength in my soul" (Psalm 138:2-3).

These types of verses could literally be multiplied by hundreds. They are not the voices of forced, obligatory, constrained worship, but are instead the cries of those who have seen the beauty and worthiness of God.

A beautiful picture of this natural and spontaneous praise is presented in Luke 19. When Jesus approached Jerusalem in what most Bible scholars call the Triumphal Entry, the "whole multitude of the disciples began to rejoice and praise God with a loud voice for all the mighty works they had seen" (19:37). The Pharisees, who refused to recognize the truth of Jesus' deity, said to Jesus, "Teacher, rebuke Your disciples" (19:39). Jesus responded by saying: "I tell you that if these should keep silent, the stones would immediately cry out" (19:40). Jesus' point was simply that all those who recognize the truth of God's character cannot help but praise Him, and that even extends (in one sense) to every aspect of the created world that shows His glory (read Psalm 148). To the Christian, the opportunity to praise God is a privilege.

Answering the Skeptics' Challenge

Having noted that praise to God flows naturally from a heart of gratitude, I would like to begin building an answer to the skeptics' challenge by presenting two separate but connected ideas. First, the *Bible never, ever, in any way, even remotely*, insinuates that God *needs* the praise and worship of humans. In fact, the Bible clearly teaches *exactly* the opposite. The psalmist recorded God's message to the Israelites regarding sacrifices in the Old Testament as follows: "If I were hungry, I would not tell you; For the world is Mine, and all its fullness.... For every beast of the forest is Mine, and the cattle on a thousand hills. I know all the birds of the mountains, and the wild beasts of the field are mine" (Psalm 50:10-12). You can easily understand God's point in this discussion. The Israelites might be questioning why they would be "forced" to burn animal sacrifices to God. Was it that God somehow needed them? God's answer shows

that He has an endless supply. He does not need the animals that the Israelites are sacrificing. In the New Testament, the apostle Paul explained to his listeners on Mars Hill: "God, who made the world and everything in it, since He is Lord of heaven and earth, does not dwell in temples made with hands. Nor is He worshiped with men's hands, *as though he needed anything*, since He gives to all life, breath, and all things" (Acts 17:24-25). Any accusation against God that suggests He is "dependent on the opinions of others" or has a "consuming need" to be worshiped is either intentionally or inadvertently distorting what the Bible says on the subject.

Second, the Bible is clear that there is only one reason God ever gives humans any commands at all. In Deuteronomy 6:24, Moses wrote: "And the Lord commanded us to observe all these statutes, to fear the Lord our God, for our good always, that He may preserve us alive, as it is this day." According to this verse, God's commandments are always given for the benefit of those who receive them. In 2 Peter 1:3, we read that God's divine power "has given to us all things that pertain to life and godliness." If God does not need human worship, why then does He so adamantly command it? He commands worship, "for our good always," so we can have everything we need for "life and godliness."

(Part II to cont. in Nov.)

ENDNOTES

- ¹ Dan Barker (2016), *God: The Most Unpleasant Character in All Fiction* (New York: Sterling), p. 168.
- ² Ibid., p. 169.
- ³ Ibid., p. 179.
- ⁴ Charles Templeton (1996), *Farewell to God* (Toronto: McClelland & Stewart), pp. 4-5.
- ⁵ Christopher Hitchens (2007), *God Is Not Great* (New York: Twelve), p. 99.
- ⁶ Bart Ehrman (2008), *God's Problem* (New York: HarperCollins), p. 128.



NOTE FROM

The Editor



AP Staff Spotlight: Dr. Dave Miller, AP Bible Department

If you've ever read an article on Christian apologetics that left you thinking, *"That was deep and clear—thorough and understandable,"* there's a good chance Dr. Dave Miller was behind it. For the past 23 years, Dave has served full-time at Apologetics Press, including 18 years as the Executive Director (2005-2023). Dave's impact on the work of AP and the Lord's Church—and far beyond—is quite extensive.

Dave holds undergraduate and graduate degrees in Bible and communications from Lubbock Christian University, Texas Tech University, Harding School of Theology, and Southern Illinois University, where he capped off his formal education with a Ph.D. in Rhetoric and Public Address. His academic background reflects what so many have come to appreciate about him—his ability to blend rigorous scholarship with meaningful, practical application of God's Word.

Dr. Miller has authored numerous books and articles, many of which have helped thousands of Christians navigate challenging theological and philosophical questions. From *The Quran Unveiled* to *Why People Suffer* to *The Bible Is From God*, Dave has produced material that both defends the Chris-

tian faith and deepens the believer's understanding of Scripture.



His *Baptism & the Greek Made Simple* is another favorite, helping countless truth-seekers cut through linguistic confusion and clearly see the biblical teaching on baptism. Whether he's addressing questions about suffering, Bible inspiration, morality, or world religions, Dave is known for his clarity and unwavering dedication to biblical accuracy.

Though some may know Dave primarily through his writing or speaking engagements across the country, those of us privileged to work with him daily can attest to his quiet consistency and genuine love for the Lord's Church. At any given moment, he might be reviewing an upcoming publication or crafting an in-depth Bible article. (He's often done both—before most people finish their second cup of coffee.)

We thank God for Dave—his dedication to the cause of Christ and his unwavering service at Apologetics Press and the Kingdom at large. His work continues to build up the Church and tear down strongholds, "bringing every thought into captivity to the obedience of Christ" (2 Corinthians 10:5).

Eric Lyons
Executive Director